STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
300 W. Preston Street, Suite 202, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

Office of Preparedness & Response
Sherry Adams, Director
Isaac P. Ajit, Deputy Director

October 19, 2012

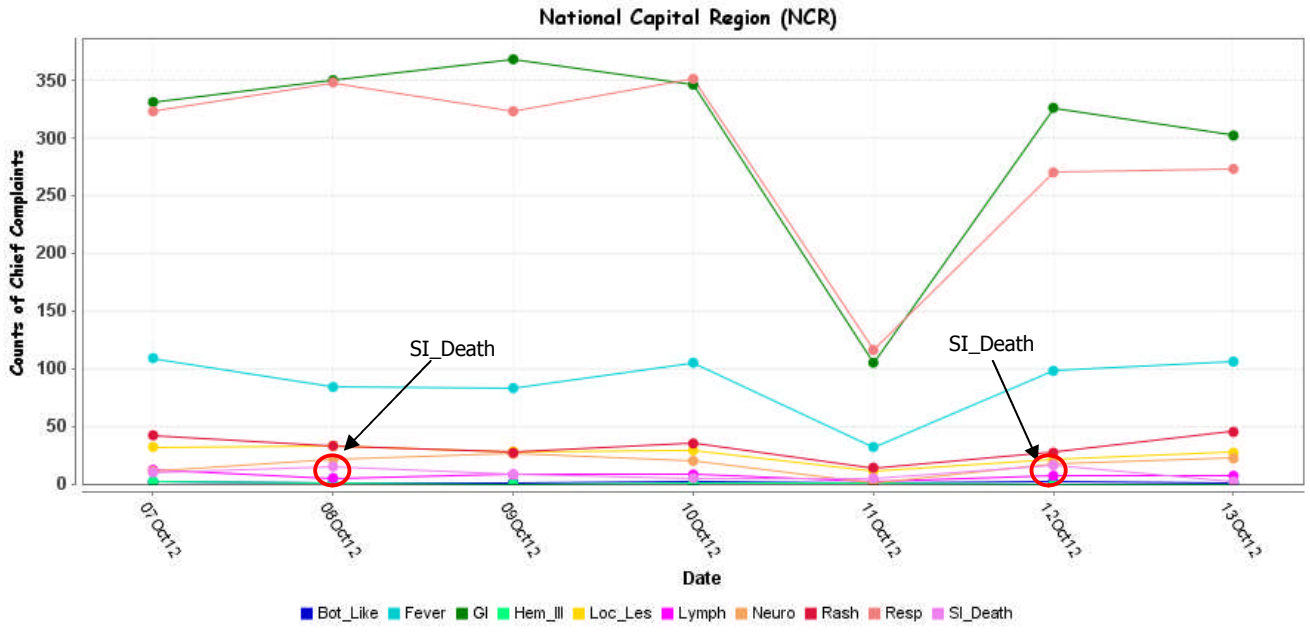
Public Health & Emergency Preparedness Bulletin: # 2012:41
Reporting for the week ending 10/13/12 (MMWR Week #41)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

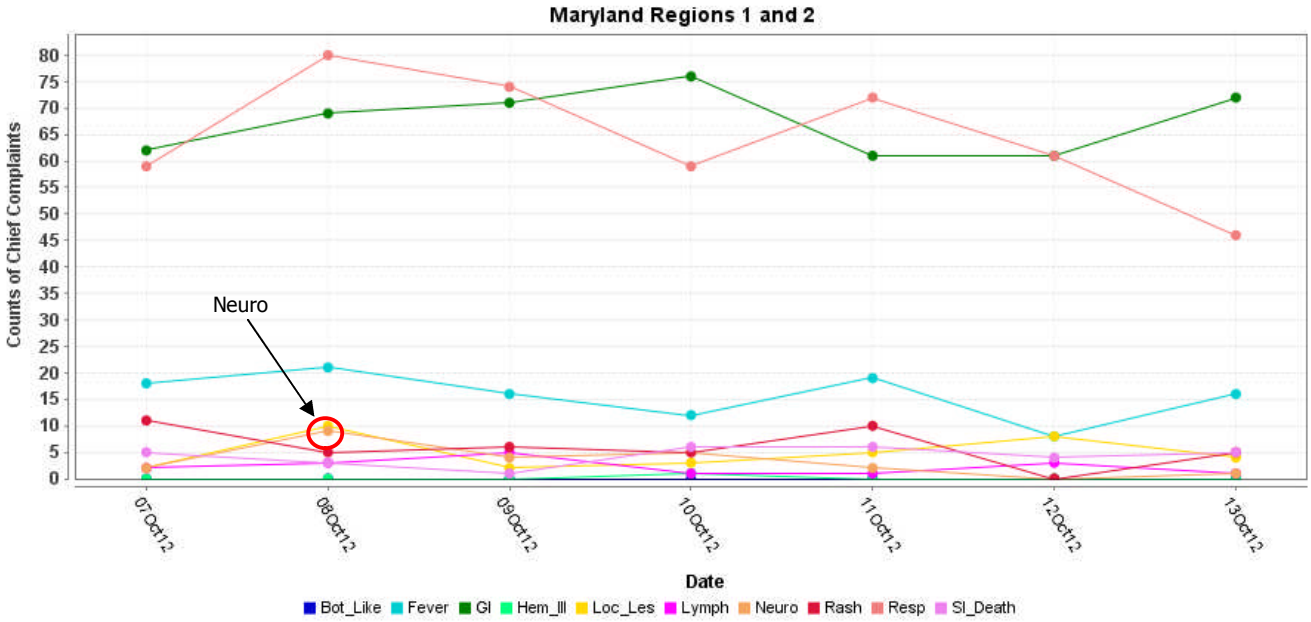
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness. (Data from VA hospitals are missing for 10/11/12).

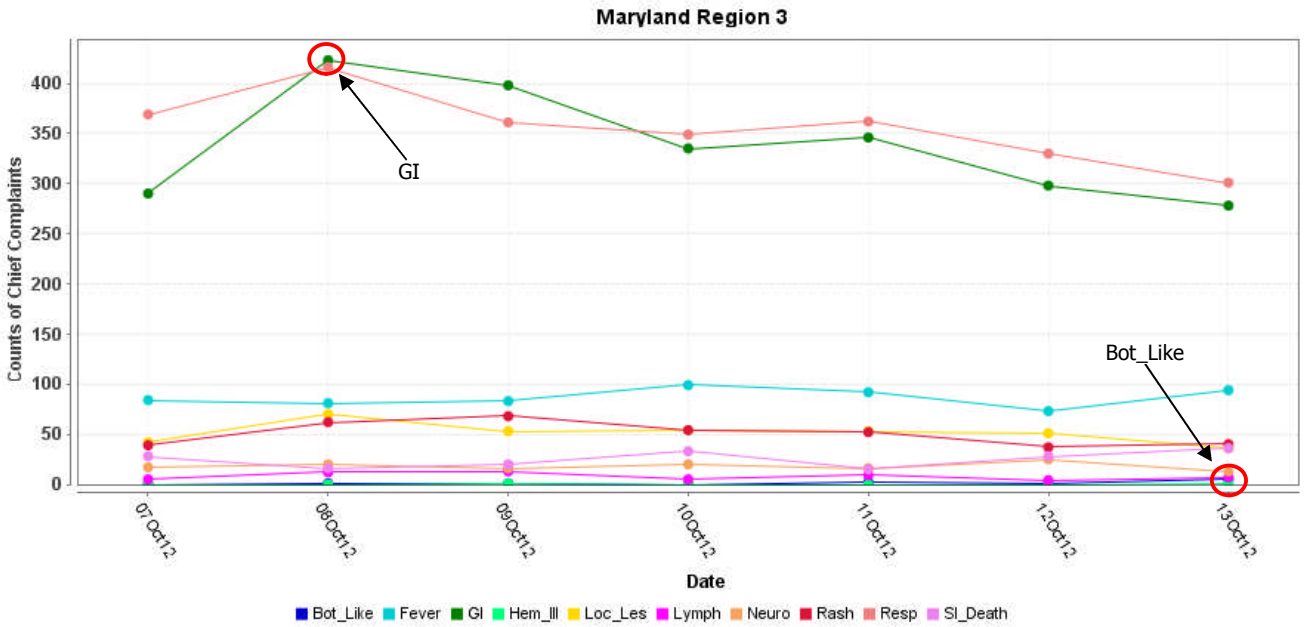


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

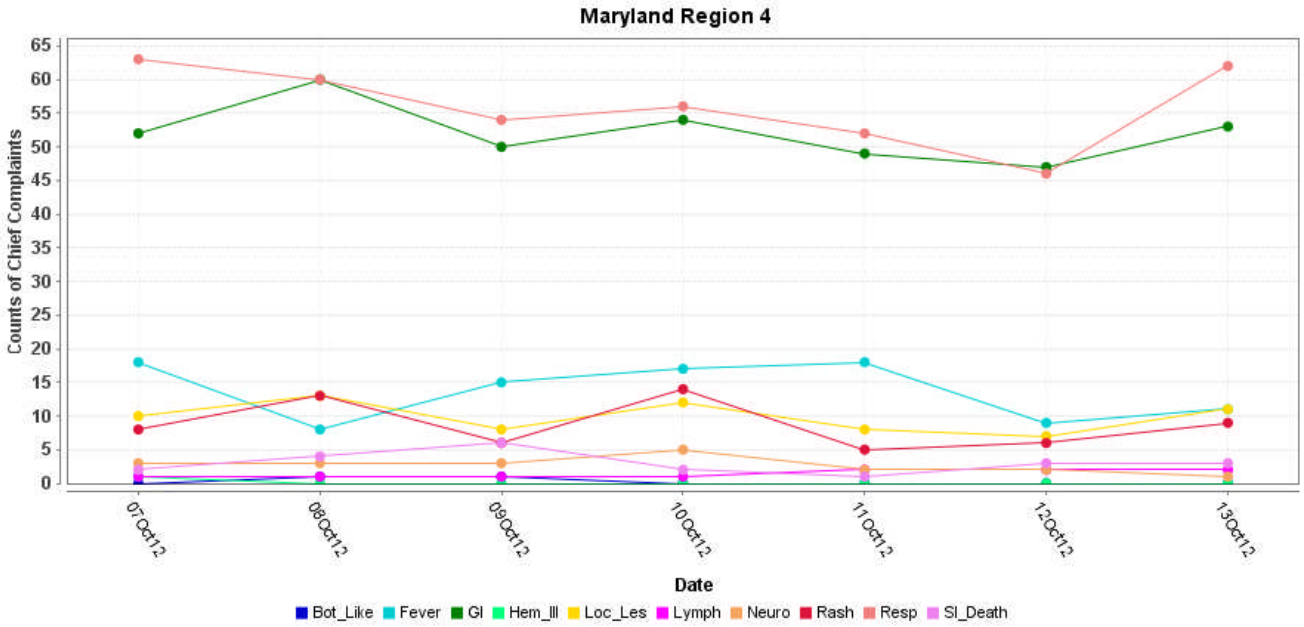
MARYLAND ESSENCE:



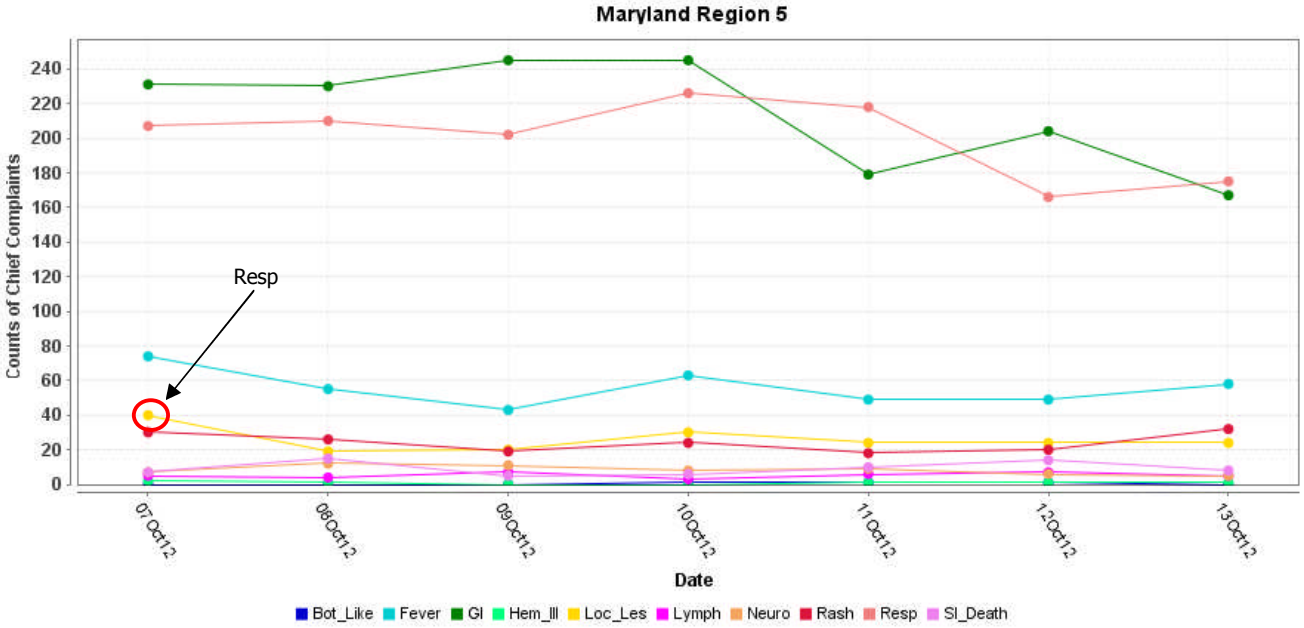
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



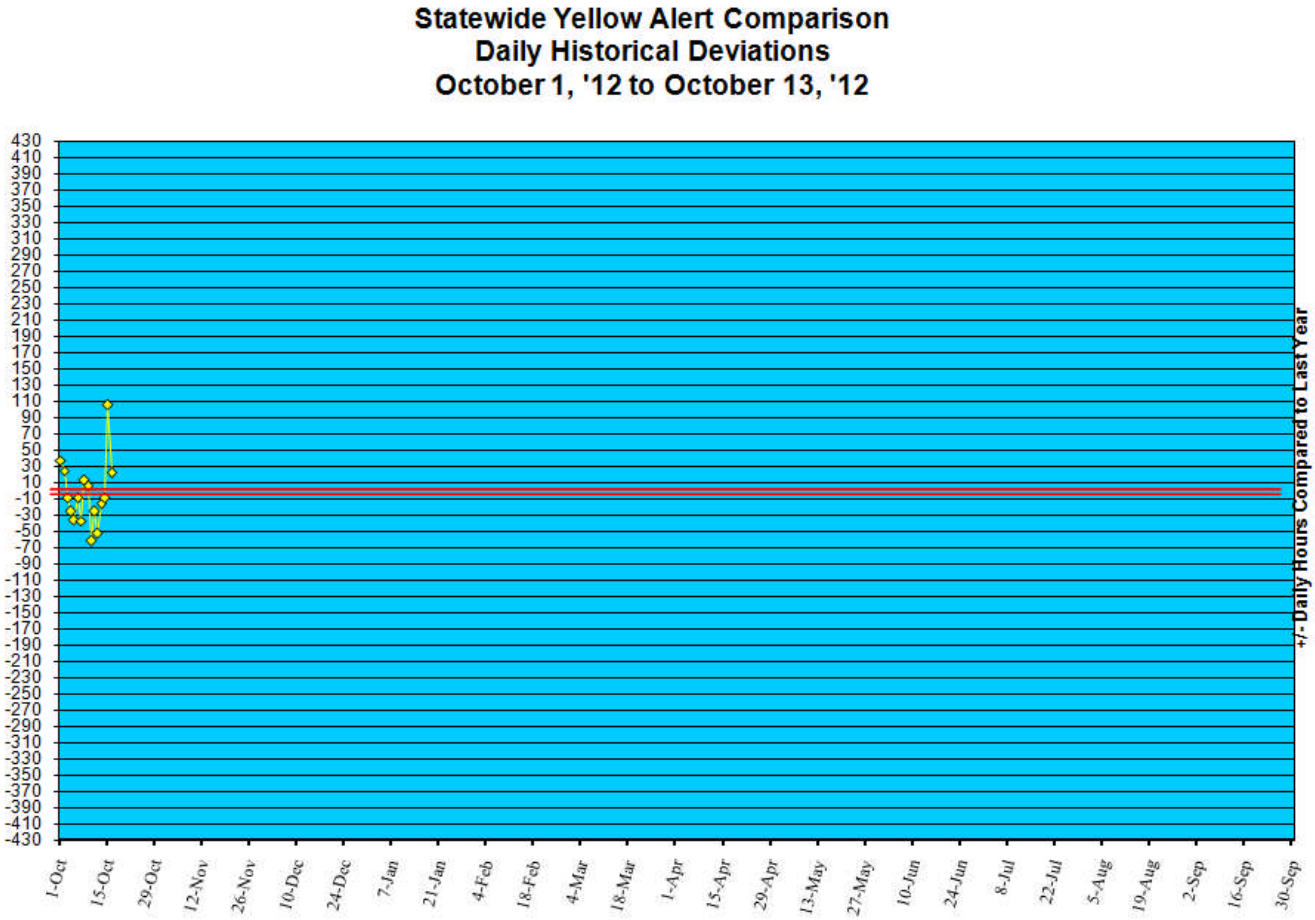
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in September 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (October 7 – October 13, 2012):	20	0
Prior week (September 30 – October 29, 2012):	10	0
Week#41, 2011 (October 9 – October 15, 2011):	13	0

0 outbreaks were reported to DHMH during MMWR Week 41 (October 7-13, 2012)

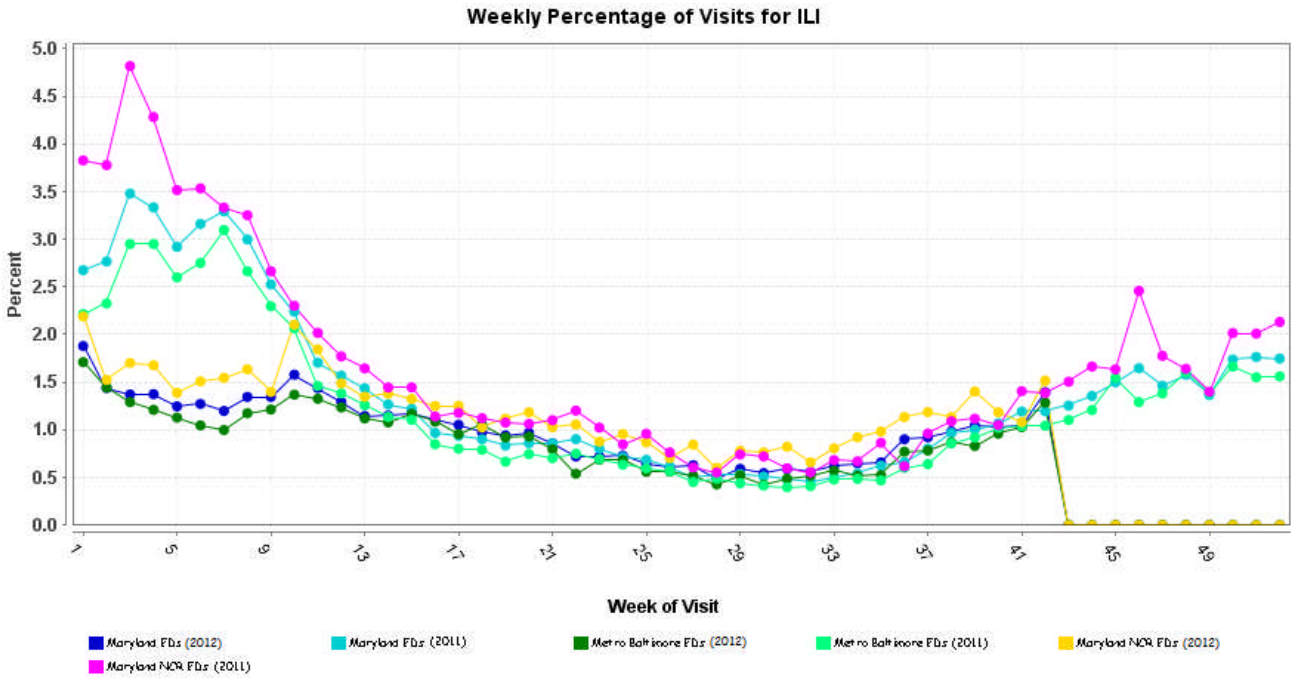
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 41 was: Sporadic Activity with Minimal Intensity.

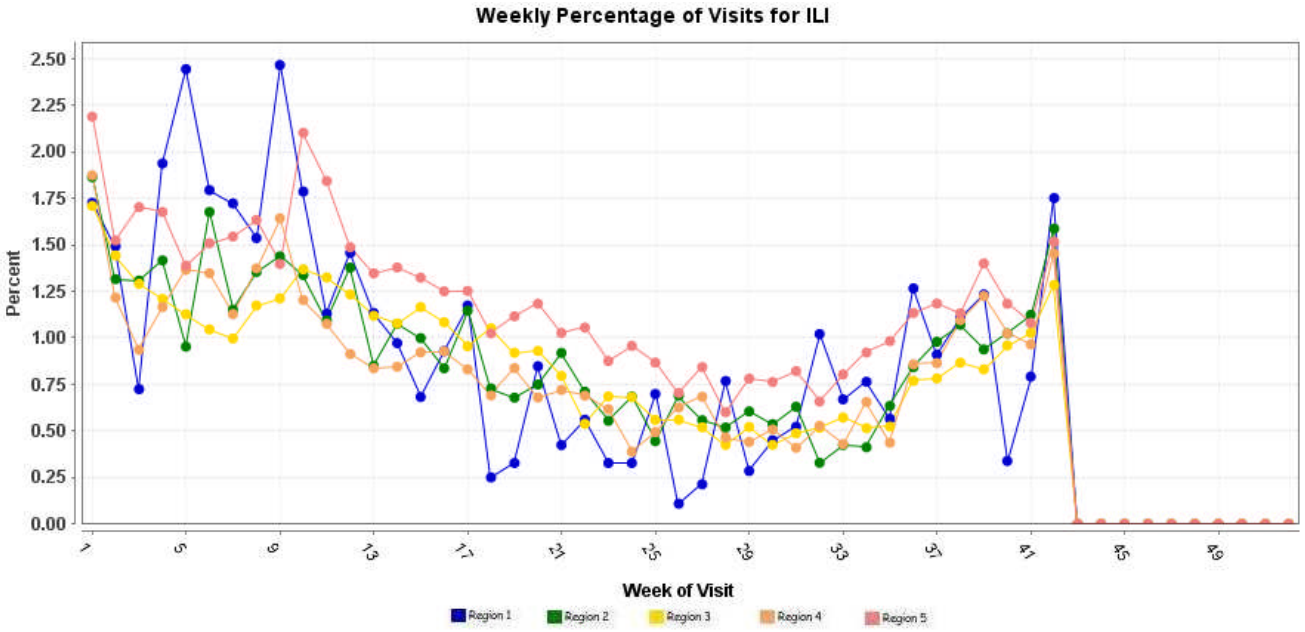
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



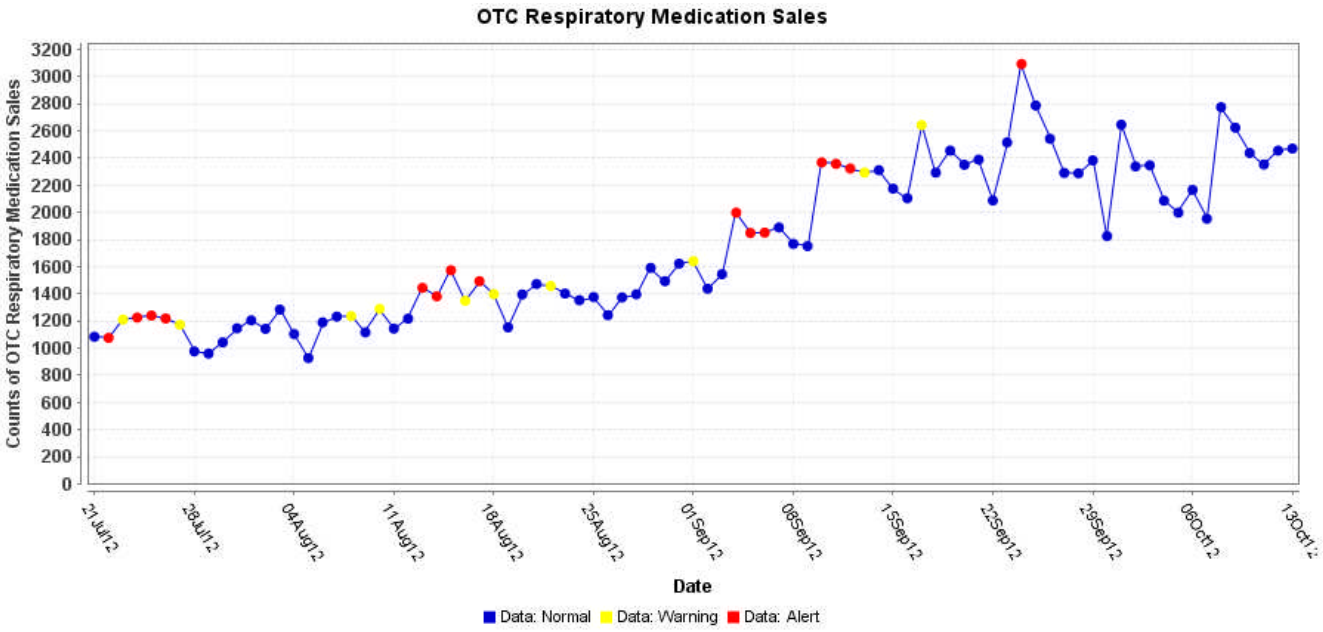
* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic. As of August 10, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 608, of which 359 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS*

E. COLI EHEC (NORTH, SOUTH CAROLINA): 13 October 2012, North Carolina health officials say a child has died from an *Escherichia coli [O157]* infection contracted at the Cleveland County Fair. The North Carolina Department of Health and Human Services announced the death Sat 13 Oct 2012. 14 children and 6 adults who attended the fair have gotten sick with the bacterial infection. Sources told CBS Affiliate WBTV that a toddler from Gaston County died at Levine Children's Hospital in Charlotte, NC, while being treated. State officials confirmed it was the 1st death in the state related to an outbreak among those who attended the Cleveland County fair. According to state health officials, investigators are working with local health departments in Gaston, Cleveland, and Lincoln Counties to investigate the outbreak. There is also one reported case in York County, SC. The people sickened all attended the Cleveland County Fair between 26 Sep and 7 Oct 2012. Health officials continue to investigate to determine the source of this *E. coli* outbreak. The bacteria are found in the waste of animals, and people who touch contaminated material such as food or animals can transfer the bacteria to their mouths or to other people. Cleveland County Fair director Calvin Hastings said the fair tried to prevent *E. coli* problems by adding handwashing stations and moving food vendors farther away from animals. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (NORTH AMERICA): 08 October 2012, To date 10 people have fallen sick from contaminated beef products from a Canadian plant that sent its meat across Canada and the United States, more than twice the number earlier reported, health officials said on Sat 6 Oct 2012. The latest cases, linked to one of Canada's largest-ever meat recalls, include 3 more illnesses in Alberta, where the giant XL Foods beef processing plant is located, 2 in Quebec, and 1 each in Newfoundland and Labrador. All 10 people are recovering, the health and food inspection officials said on a conference call with reporters. The ever-widening recall of meat from the plant now involves more than 1800 products including steaks, ground beef and roasts and now spans all of Canada and most USA states. The previous 4 cases were also in Alberta, and officials say they have evidence that these victims ate meat produced by the XL Foods plant in Brooks, Alberta, which has been shut down since 27 Sep 2012. The USA stopped importing meat from the plant on 13 Sep 2012. The Canadian officials said the 6 new cases were caused by the same strain of the *E. coli* as the previous cases. The officials said they cannot prove that the sick people ate food from XL. But Dr Frank Plummer, chief science officer of Canada's Public Health Agency, said it was almost certain that all 10 cases trace back to the XL Foods meat recall. The bacterial strain in this case has a unique "genetic fingerprint" never before seen in Canada or the USA, he said. The XL plant, one of the largest in Canada, slaughtered about 4500 cattle per day. It will remain closed until the privately held company complies with a series of requests for corrective action from the Canadian Food Inspection Agency [CFIA], said Dr Richard Arsenault, CFIA director of meat programs. Inspectors found that while XL Foods had an appropriate plan to control food safety risks, it didn't fully carry it out. The company said on Friday [5 Oct 2012] it deeply regretted the sickness caused by consumption of beef products. It promised to "exceed existing high standards and regain the trust of Canadian consumers." (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS*

VIBRIO VULNIFICUS (CHINA): 08 October 2012, The Centre for Health Protection (CHP) of the Department of Health is investigating a fatal case of *Vibrio vulnificus* infection involving an 80 year old man with chronic illness. The man developed fever and symptoms of vomiting, neck pain, and right facial swelling on 30 Sep 2012. He was admitted to Tuen Mun Hospital the following day and was noted as having facial bruises and swelling around his right eye. His condition later deteriorated and he passed away on 2 Oct 2012. His blood specimen taken during admission cultured positive for *Vibrio vulnificus*. The CHP's investigation revealed that the man was injured by a crab on 30 Sep 2012.

The public is reminded to adopt the following measures to prevent *V. vulnificus* infection:
- avoid exposure of open wounds or broken skin to seawater or salty water;
- wounds should be thoroughly cleaned and properly covered;
- wear thick rubber gloves when handling raw shellfish;
- cook seafood, especially shellfish (such as oysters, clams, and mussels) thoroughly; and
- for shellfish, boil until the shells open and avoid cross-contamination of ready-to-eat food with raw seafood.

Patients should seek medical advice promptly if they develop symptoms and signs of infection such as increasing redness, pain, and swelling. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (CHINA): 11 October 2012, The Centre for Health Protection (CHP) of the Department of Health (DH) today (11 Oct [2012]) confirmed an imported case of Japanese encephalitis (JE) and reminded the public to take preventive measures against mosquito-transmitted diseases. The case involved a 50 year old man who lives and works in Xinhui on the mainland, where he developed fever and vomiting on 22 Sep [2012] and consulted a doctor. He arrived in Hong Kong the following day (23 Sep [2012]) and was admitted to North District Hospital the same day. He was

transferred to the intensive care unit on 24 Sep [2012] due to fever, confusion, and deteriorating general condition. Results of laboratory analysis on his serum and cerebrospinal fluid samples tested positive for JE [virus? antibody?], a viral disease transmitted by the bite of infective mosquitoes. He is currently in a serious condition. This is the 3rd JE case reported to the CHP this year. In Hong Kong, one case was reported in 2011 while none were reported from 2008 to 2010. A CHP spokesman explained that JE is transmitted by *Culex tritaeniorhynchus* (Culicine mosquitoes), which breed mainly in waterlogged fields, marshes, ditches and small, stable collections of water around cultivated fields. The mosquitoes become infected after biting pigs or wild birds infected with the virus. Mild JE infections may occur without apparent symptoms other than fever with headache. Severe infections are marked by quick onset of headache, high fever, neck stiffness, impaired mental state, coma, tremors, occasional convulsions (especially in infants) and paralysis. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

*National and International Disease Reports are retrieved from http://www.promedmail.org/.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

****

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Zachary Faigen, MSPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: ZFaigen@dhmh.state.md.us

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: ASalim@dhmh.state.md.us

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable